

A method of

S/051/62/015/002/009/014
E052/E314

the numerical values of the independent
parameters x_j of all the m-layer.

With $k = 2$ the function Φ_m represents the r.m.s. departure
of $R_m(\underline{X}, \lambda)$ from the given function $F_o(\lambda)$. To each value of
 \underline{X} there corresponds a certain filter and as R_m approaches F_o ,
 $\Phi_m(\underline{X}) \rightarrow 0$. The parameters of the multilayer filter are determined
by varying the components of \underline{X} until minimum $\Phi_m(\underline{X})$ is reached..

A complete numerical scheme suitable for use with an electronic
computer is given and some typical examples are quoted. It is
assumed that dispersion and absorption are absent but it is said
that this limitation could easily be removed.
There are 6 figures and 2 tables.

SUBMITTED: June 8, 1961

Card 3/3

ACCESSION NR: AT4019299

S/0000/63/003/001/0116/0119

AUTHOR: Vlasov, A.G.; Sherstyuk, A. L.

TITLE: Theoretical investigation of the possible use of the method of differential thermal analysis for the quantitative study of the crystallization process

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962.

Stekloobraznoye sostoyaniye, vy*p. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy* simpoziuma, v. 3. no. 1. Moscow, izd-yo AN SSSR, 1963, 116-119

TOPIC TAGS: crystallization, thermal analysis, thermogram, glass

ABSTRACT: The method of differential thermal analysis used hitherto is unsuitable for the accurate determination of the amount of crystallized phase, which is absolutely essential for the study of the nature and dynamics of crystallization. For this purpose, new experimental methods are suggested and formulas are derived. The logarithm of the temperature difference θ is plotted against time in typical curves obtained from the thermograms. The study of these diagrams showing the relationship between θ and t makes it possible to determine all the thermal characteristics of the test sample. Another very important value

Card 1/2

VLASOV, A.G.; CHEBOTAREVA, T.Ye.

Determining the qualitative relation between the ordered and disordered phases in glass containing 33.3% of Na_2O and 66.7% of SiO_2 . Opt. i spektr. 13 no.4:615-617 0 '62. (MIRA 16:3)
(Glass—Spectra)

S/057/62/032/006/009/022
B108/B102

9.3140

AUTHORS: Vlasov, A. G., and Shakhmatova, I. P.

TITLE: The field of a lens with disturbed axial symmetry

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 695 - 705

TEXT: The field of an electron lens in which the circular symmetry of the electron trajectory is no longer conserved is calculated. The concrete example of a lens consisting of two elliptical cylinders face to face is considered. The results of exact analytical calculations are compared with the results obtained with the aid of perturbation theoretical calculations. The perturbation theoretical results are true only if the perimeter of the ellipse is equal to that of the ideal circular lens. Numerical calculations were also performed. The ellipticity causes a paraxial astigmatism. This kind of aberration is proportional to the aperture and to the ellipticity. There are 4 figures and 2 tables. ✓ B

SUBMITTED: July 25, 1961

Card 1/1

VLASOV, A.G.; KRUPP, D.M.

Calculation of an aspherical lens having a pair of real aplanatic points. Opt. i spektr. 15 no.5:676-681 N '63. (MIRA 16:12)

YELKIN, M.M.; NIASOV, A.I.

Making thermocouple tips of cermets. Biul. TSIIN tsvet. met. no.9:
22-23 '58. (MIRA 11:6)

(Thermocouples) (Cermets)

VLASOV, A.I., otv.red.; SHAPIROVA, A.S., red.; SOROKINA, T.I., tekhn.red.

[Efficiency promotion at the V.V.Kuibyshev plant] Ratsionalizatsiia
na zavode im. V.V.Kuibysheva. Irkutskoe knizhnoe izd-vo, 1956.
47 p. (MIRA 12:7)

1. Glavnyy inzhener zavoda im. V.V.Kuibysheva (for Vlasov).
(Irkutsk--Machinery industry)

SAKHARNYY, Nikolay Fedoseyevich; TURILOV, G.I., nauchn. red.;
VLASOV, A.I., red.

[Course in theoretical mechanics] Kurs teoreticheskoi me-
khaniki. I Arosavl', Vysshaia shkola, 1964. 844 p.
(MIRA 17:7)

CHERVONOBRODOV , P.L.; YEFREMOV, V.V., prof., otv. red.; VLASOV,
A.I., red.; SHVETSOV, S.V., tekhn. red.

[Characteristics of the assembling of rear axles of auto-
mobiles during major repairs] Osobennosti sborki zadnikh
mostov avtomobilei pri kapital'nom remonte. Moskva, Ros-
vuzizdat, 1963. 23 p. (MIRA 17:3)

80:73

S/136/60/000/07/016/024
E073/E235

18.6100

AUTHORS: Savitskiy, Ye. M., and Vlasov, A.I

TITLE: Sintered Copper Powder. ✓

PERIODICAL: Tsvetnyye metally, 1960, Nr 7, pp 72-77 (USSR)

ABSTRACT: The authors investigated the structure, electric resistance and the mechanical properties of sintered copper powder with additions of oxides of aluminium, silicon and magnesium, using as starting materials powders with characteristics as given in Table 1. The mixture for obtaining sintered copper powders were prepared by simple mechanical mixing of the appropriate powders of copper and oxides. The mixing was effected in steel ball mills by the wet method with a ball to charge ratio of 5:1 and a mixing time of 43 hours. ✓
Copper powder mixtures containing 1, 3 and 5 vol % each of aluminium and silicon oxides and 1, 3, 5 and 10 vol % of magnesium oxide were used. The mixtures were subjected to hydrogen reduction at 350°C for a duration of 30 mins and from these, specimens of 80 mm diameter, 110 to 120 mm height were produced by hydrostatic pressing with a pressure of 1000 kg/cm². The presslings

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Sintered Copper Powder

were sintered in the hydrogen atmosphere with a slow rise in the temperature of 1000°C holding the presslings at this temperature for a duration of 3 hours. The sintered blanks, 70 mm diameter, were extracted at 800°C into rods of 21 mm diameter, which were annealed at 400°C for a duration of 1 hour. Further investigations were carried out on pressed and annealed specimens. Table 1 gives data on the characteristics of the powders used for preparing the mixture. Table 2 gives data on the density and the electric conductivity of the investigated specimens. Fig 1 shows microstructure photographs of sintered powder containing 1% Al₂O₃ taken with magnification of 1500 and 8800 respectively. Fig 2 shows plots of the dependence of the hardness on the annealing temperature for copper and sintered copper powder containing respectively 5, 3 and 1% Al₂O₃. Fig 3 shows plots of the dependence of the hardness on the annealing temperature for copper and sintered copper powder containing respectively 10, 5, 3 and 1% MgO. Fig 4 shows plots of the dependence of the UTS of sintered copper powder as a function of the percentual

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Sintered Copper Powder

contents of Al_2O_3 and MgO at temperatures of 20, 400, 600 and 800° respectively. Fig 5 shows plots of oxidation of copper and of sintered copper powders at various temperatures. It is stated that the strength of sintered copper powder specimens containing oxides and produced by the method described in this paper exceeds considerably the strength of copper both at room temperature and at temperatures up to 800°C. The strength of sintered copper powder containing Al_2O_3 exceeds by a factor of 1.5 the strength of copper in the temperature range 20 to 800°C; the hardness exceeds the hardness of copper by a factor of 2 to 3. Addition of oxides to copper increases its recrystallisation temperature from 300 to 600-700°C; sintered copper powder does not soften after heating it to the above mentioned temperatures. The electric conductivity of sintered copper powder containing 1 and 3 vol % Al_2O_3 is 87 to 93% of the electric conductivity of copper. The resistance to scaling of the sintered copper powder is also higher than that of copper. The best results are

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Sintered Copper Powder

obtained with sintered copper powders containing additions of Al_2O_3 , whereby the values of the strengths and hardness are higher in the case of using

high disperse oxides with a maximum uniformity in their distribution in the volume of the component. Components made of this material can be used advantageously in those branches of engineering where high temperature copper alloys are being used. There are 5 figures, 2 tables and 6 references, 4 of which are Soviet and 2 English. ✓

ASSOCIATION: VNIITS

Card 4/4

SAVITSKIY, Ye.M.; VLASOV, A.I.

Copper hardening by finely dispersed particles. TSvet. met.
34 no.12:77-81 D '61. (MIRA 14:12)
(Copper---Hardening)

88740

S/127/60/000/012/002/005
B012/B054

18.1150

AUTHORS: Kolchin, A. V. and Vlasov, A. I. (Moscow)
TITLE: New hard metals for the armoring of chisels for cable-tool drilling
PERIODICAL: Gornyy zhurnal, no. 12, 1960, 29-30

TEXT: The Institutes VSEGEI (All-Union Scientific Research Institute of Geology) and TsNIGRI (Central Scientific Research Institute of Mine Prospecting) tested chisels with welded-on sintered alloys of the Stalinite type and of T3 (T3) Relite. The welded-on layers, however, cracked and became brittle when drilling in hard rock. In 1958-1959, the Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh splavov (VNIITS) (All-Union Scientific Research Institute of Hard Alloys (VNIITS)) together with the Magnitogorskiy zheleznyy rudnik (Magnitogorsk Iron Mine) and the Magnitogorskiy gorno-metallurgicheskiy institut (Magnitogorsk Institute of Mining and Metallurgy) developed new welding alloys. Sintered tube electrodes of the types T 6 (T 6) and T 30 (T 30), and powder-charged steel tubes (8 mm in diameter and 400 mm long) were produced. The weight

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B012/B054

New hard metals for the armoring...

ratio charge tube was 0.75 : 1. A protective casing permitted the welding on a.c. and d.c. apparatus, and protects the individual components of the charge from oxidation and burning out. These experimental electrodes were tested in the mines of the Noril'skiy kombinat (Noril'sk Combine) and Magnitogorskiy kombinat (Magnitogorsk Combine). The T6 alloy was welded on the cutting edges and lateral surfaces of the chisel (at 780-820°C) immediately after the forging of the chisel. The layer welded-on was 2-4 mm thick. The T30 electrodes were welded on the cold, worn-out chisel on the spots of maximum wear. For an appropriate shaping, the chisel was then heated to 1150-1200°C, directed, and the welded-on layer was forged together with the chisel. In the Magnitogorsk Mine, drilling was performed with an 1100-1450 kg boring tool in rock with a hardness of 1-15 according to Protod'yakonov. In the mine of the Noril'sk Combine, the alloys Relite T3, T6, and T30 were tested on horseshoe chisels 200 mm in diameter. Relite T3 and T6 were welded onto the chisels immediately after forging. Results showed that the alloys T6 and T30 increased the resistance to wear of chisels in cable-tool drilling to the 1.5-2.5 fold, as compared with usual steel chisels. There are 2 tables and 2 Soviet bloc references.

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88 740

New hard metals for the armoring...

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B012/B054

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh
splavov, Moskva (All-Union Scientific Research Institute of
Hard Alloys, Moscow)

X

Card 3/3

KUZNETSOV, Ye.S., kand. tekhn. nauk; KRAMARENKO, G.V., pro ., red.; VLASOV, A.I., red.

[Maintenance of motor vehicles] Tekhnicheskaja ekspluatatsiia avtomobilei. Moskva, Rosvuzizdat. No.1. 1963. 60 p.
(MIRA 17:4)

SAVITSKIY, Ye.M.; VIASOV, A.I.

Sintered copper powder. TSvet. met. 33 no.7:72-77 J1 '60.
(MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh
splavov.
(Powder metallurgy) (Copper)

L 16081-55 EWG(j)/EWT(m)/EPF(c)/EPR/EWP(e) EWP(w)/EWA(d)/EWP(t)/EWP(k)/EWP(b)
 FR-4/Pg-4 LIP(c)/ESD(gs)/BSD/ASD(f)-2/ASD(f)-2/ASD(f)-2/ASD(f)-2
 ACCESSION NR: AP5001940 S/0126/64/018/001/0148/0149

AUTHOR: Pivovarov, L. Kh.; Vlasov, A. I.

TITLE: Interphase stresses in powdered copper hardened by dispersed inclusions of Al_2O_3

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 1, 1964, 148-149

TOPIC TAGS: powder metallurgy, powder metal mixing, copper, aluminum oxide, copper alloy, stress calculation, lattice deformation, lattice distortion, elastic stress

Abstract: In this work a study of microstresses caused by differences in the coefficients of phase expansion was conducted on copper hardened by dispersed inclusions of aluminum oxide. The samples were prepared by the method of powder metallurgy. The initial powders of copper and Al_2O_3 were mixed in corresponding proportions in steel ball mills. Mixing time was 43 hours. The prepared mixtures of copper with 1, 3 and 5% by volume of Al_2O_3 were annealed in hydrogen at 350° for 60 minutes for reduction of copper oxides, and then pressed into blanks with a diameter of 80 mm and a height of 110-120 mm. The blanks were sintered in a resistance furnace. Temperature was slowly raised.

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ACCESSION NR: AP5001940

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to 1000° and held there for 2 hours. The sintered blanks were drawn through dies into rods 21 mm in diameter at 750-800°. Research was carried out on thin sections prepared from these drawn bars. In order to eliminate the casing caused by polishing, the samples were annealed at 600° and quenched from this temperature. A study of the magnitude and sign of microstresses caused by a difference in coefficients of expansion was conducted for the copper phase on the displacement of x-ray lines according to methods worked out by one of the authors on the basis of the work of D. M. Vasil'yev (Zhurnal Tekhnicheskoy Fiziki, Vol 3, No 1, 1958, p 2527). The technique proceeds from the existence of a equiaxial volume-stressed state in the volume of the given phase of the alloy. This state is created by a system of oriented microstresses (σ) of a definite sign. On the surface of the alloy, in the volume being x-rayed, the component which is perpendicular to the surface is partially reduced, but preserves some noticeable value. The lattice deformation caused by these microstresses at angle ψ between the reflecting plane and the surface of the sample ($\epsilon \psi$) may be calculated by the formula

$$\epsilon \cdot \epsilon \psi = \sigma [(1 + \mu) \sin^2 \psi - 2\mu] + \sigma_1 [(1 + \mu) (1 - \sin^2 \psi)]$$

where E and μ are the modulus of elasticity and Poisson's ratio respectively of given reflecting plane of the phase being studied. Calculations show that

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oriented microstresses of a considerable magnitude in copper with dispersed aluminum oxide inclusions appear in the copper phase. The difference between the coefficients of expansion of copper and aluminum oxide may be considered the probable cause of these microstresses. The microstresses increase with an increase in the quantity of Al_2O_3 of 1 to 3%. No difference was observed in the magnitude of microstresses between samples with 3 and 5% Al_2O_3 . This is probably a result of the fact that the yield strength has already been reached at 3% Al_2O_3 . Only elastic stresses which cannot exceed the yield strength have been measured radiographically. A further increase in the quantity of Al_2O_3 probably leads to an increase in the amount of plastic deformation of the copper phase. The line width increases with a transition from 1% Al_2O_3 to 3% and again from 3 to 5%. This increase may be explained by the increase in distortions of the copper lattice of the alloy (presence of disoriented microstresses, small block dimensions, etc.). The oriented and disoriented microstresses in copper, strengthened by dispersed inclusions of Al_2O_3 , are probably some of the factors which determine the strength of these materials. Orig. art. has 1 table and 1 equation.

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ACCESSION NR: AP001940

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh splavov
(All-Union Scientific Research Institute of Hard Alloys)

SUBMITTED: 20Aug63

ENCL: 00

SUB CODE: MM, AS

NO REF SOV: 003

OTHER: 003

JPRS

Card 4/4

POZIN, L.M.; AL'SHITS, I.M.; GRAD, N.M.; VLASOVA, A.I.

Hardening of unsaturated polyesters in the presence of metallic
zinc. Zhur.prikl.khim. 38 no.3:708-709 Mr '65. (MIRA 18:11)

1. Submitted Febr. 25, 1964.

VIASOV, A.M.

Cyclic operation of an underground gas reservoir in a horizontal water-bearing reservoir under water-drive conditions. Izv. vys. ucheb. zav.; neft' i gaz 7 no.7:89-92 '64.

(MIRA 17:9)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I.M. Gubkina.

VIASOV, A.M. (Moskva); LAN CHZHIAN-SIN' [Land Chang-hsin] (Moskva)

Gas pressing into a water-bearing bed. Inzh.zhur. 4 no.1:130-134
'64. (MIRA 17:4)

VLASOV, A.M.; SIZOV, Ye.I.

Machine tools manufactured in plants of the Vladimir Province.
Economic Council in 1960-1961. Biul.tekh.-ekon.inform. no.9:33-35
'61. (MIRA 14:9)

(Vladimir Province--Machine tools)

ZHEGALIN, I.K.; PUSTYGIN, A.A., glav. agronom; SPODENYUK, N.I.;
BYKOV, N.I.; REDIN, P.N., glav. agronom; LOGVIN, N.P., Geroy So-
tsialisticheskogo Truda; GUSEV, I.D.; PETROV, S.N.; VLASOV, A.I.,
glav. zootekhnik; SHEREMET, L.D., glav. bukhgalter; SKAKUNOV, N.V.,
glav. inzh.; SHUMILIN, V.S., glav. inzh.; CHERNORUBASHKIN, N.A.,
kombayner; DRYABO, N.Ye.; ZABNEV, V.F., redaktor; SHIROKOV, B.G.;
SHEPELEV, M.A.; LEONOVA, T.S.; SAYTANIDI, L.D., tekhn. red.

[Hundred million poods of grain from Stalingrad Province] 100 mil-
lionov pudov stalingradskogo khleba. Moskva, Izd-vp M-va sel'.khoz.
RSFSR, 1960. 133 p. (MIRA 14:9)

1. Pervyy sekretar' Stalingradskogo oblastnogo komiteta Kommunistiches-
koy partii Sovetskogo Soyuza (for Zhegalin). 2. Oblastnoye upravleniye
sel'skogo khozyaystva Stalingradskoy oblasti (for Pustygin). 3. Ne-
khayevskiy rayonnyy komitet Kommunisticheskoy partii Sovetskogo Soyuza
(for Spodenyuk). 4. Nachal'nik Kotel'nikovskoy rayonnoy sel'skokho-
zyaystvennoy inspeksii, Krayniy Yugo-vostok (for Bykov). 5. Kolkhoz
"Deminskiy" Novo-Annenskogo rayona, Stalingradskoy oblasti (for Redin).
6. Predsedatel' kolkhoza "Zavety Il'icha" Kalininskogo rayona (for Log-
vin). 7. Nachal'nik Novo-Annenskoy rayonnoy sel'skokhozyaystvennoy in-
speksii (for Gusev). 8. Direktor sovkhoza imeni Frunze Serafimovich-
skogo rayona Stalingradskoy oblasti (for Petrov). 9. Stalingradskoye
oblastnoye upravleniye sel'skogo khozyaystva (for Vlasov). 10. Sovkhoz
"Dinamo" Nekhayevskogo rayona Stalingradskoy oblasti (for Sheremet).
(Continued on next card)

ZHEGALIN, I.K. — (continued) Card 2.

11. Oblastnoye upravleniye sel'skogo khozyaystva Stalingradskoy oblasti (for Skakunov). 12. Sovkhoz "Verkhne-Buzinovskiy" Stalingradskoy oblasti (for Shumilin). 13. Otdeleniye No.6 sovkhoza "Serebryakovskiy" Mikhaylovskogo rayona Stalingradskoy oblasti (for Chernorubashkin). 14. Zven'yevoy kolkhoza imeni Lenina Zhirnovskogo rayona Stalingradskoy oblasti (for Dryabo). 15. Danilovskaya rayonnaya gazeta "Kolkhoznoye znanya" Stalingradskoy oblasti (for Zabnev). 16. Zamestitel' predsedatelya oblastnogo ispolnitel'nogo komiteta Stalingradskoy oblasti (for Shirokov).

(Volgograd Province—Grain)

31742
S/136/61/000/012/006/006
E193/E383

18.1220

AUTHORS: Savitskiy, Ye.M. and Vlasov, A.I.

TITLE: Increasing the strength of copper by finely-dispersed particles

PERIODICAL: Tsvetnyye metally, no. 12, 1961, 77 - 81

TEXT: In view of the growing interest in the dispersion-hardened metal-metal oxide systems (e.g. Cu-Al₂O₃), the present authors have studied the structure, electrical-resistance and mechanical properties of Cu with additions of Al₂O₃, TiC or TiB₂. The characteristics of the raw materials are given in Table 1. One series of experimental specimens (Cu + up to 1% Al₂O₃) was prepared by treating metallic copper with an aqueous solution of aluminium oxychloride. Other specimens were prepared from the respective powder mixtures which, after preliminary 60-min treatment in hydrogen at 350 °C, were compacted, sintered and extruded to 17 and 21 mm diameter rods. Specimens of series I (in which Al₂O₃ particles were

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Increasing the strength

formed by decomposition of aluminium oxychloride) were characterized by the smallest particle-size and most uniform distribution of the oxide particles. Alumina introduced as such was much coarser and the particle-size of TiC was larger still. Other properties of extruded materials are given in Table 2. In the next series of experiments, recrystallization characteristics of the alloys were studied by taking hardness measurements on specimens annealed for 1 hour at various temperatures. The results are reproduced in Fig. 3, where the hardness (H_v , kg/mm^2) is plotted against the annealing temperature ($^{\circ}\text{C}$) for specimens with 1 - 1% Al_2O_3 (series I), 2 - 1% Al_2O_3 (series II), 3 - 0.4% Al_2O_3 (series I) and 4 - pure copper. Similar graphs, reproduced in Fig. 4, were constructed for 1 - pure copper, 2 - 3% TiC, 3 - 5% TiC, 4 - 10% TiC, 5 - 3% TiB_2 , 6 - 5% TiB_2 and 7 - 10% TiB_2 .

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Increasing the strength

It will be seen that, in contrast to pure copper, the dispersion-strengthened alloys do not recrystallize even when heated to the top limit (900 °C) of the temperature range studied. The temperature-dependence of strength of dispersion-hardened alloys was studied in the final stage of the present investigation. The results are reproduced in Fig. 5, where UTS (σ , kg/mm²) at temperatures indicated by each curve is plotted against the Al₂O₃ content of the material, the broken and continuous curves relating, respectively, to specimens of I and II series. UTS of dispersion-hardened alloys at 30, 400 and 600 °C is plotted in Fig. 6 against the TiB₂ (continuous curves) and TiC (broken curves) content. The best combination of properties was obtained in the alloy with 1% Al₂O₃, present in the form of colloidal-size particles formed as a result of decomposition of aluminium oxychloride. The UTS of this material at room temperature and at 600 °C was 35 - 37 and 14 - 15 kg/mm², respectively, although its electrical conductivity was practically equal to that of pure copper.

Card 3/8

VLASOV, A. I., Jt. au.

Brinza manufacture according to the Hungarian method Pod obshchei reduktsiei P. V. Galaeva. Moskva, Gos. trgovoe izd-vo, 1931. 64 p.

1. Cheese. I. Vlasov, A. I. jt. au. II. Galaev, P. V., ed.

VLASOV, A.I., marksheyder

~~SECRET~~

Orienting underground workings through one shaft by two fixed
wires. Gor. zhur. 122 no.2:38-40 F '48. (MIRA 8:9)
(Mine surveying)

VLASOV, A. I., KIRENSKIY, L. V., VTYURIN, N. I., DROKYN, A. I., IVLEV, V. F.,
and TUKALOV, R. I., (Krasnoyarsk)

"The Temperature and Rotation Hysteresis in Ferromagnetic Materials," a paper
submitted at the International Conference on Physics of Magnetic Phenomena,
Sverdlovsk, 23-31 May 56.

VLASOV, A.G.

Novoye Dokazatel'stvo teoremy poh ilke. Matem. sb. 32(1925), 453-456 Ob
osobennostyakh v raspolozhenii paskalevykh liniy dlya dannykh shesti tochek
konicheskogo sечeniya. Matem. sb., 32 (1925) 667-701

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.
Markushevich, A.I.
Rashevshiy, P.I.
Moscow-Leningrad, 1948

VLASOV, A.M.

Determination of gas saturation in a horizontal water-bearing reservoir in the creation and use of underground gas reservoirs.
Izv.vys.ucheb. zav.; neft' i gaz 6 no.11:91-96 '63. (MIRA 17:9)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
imeni akad. I.M.Gubkina.

V. LASOV, A.M.

PROCESSES AND PROPERTIES

The silicon-manganese-molybdenum steels. M. P. Braun and A. Ylasov. *Teoriya i Prakt. Met.* 1939, No. 2, 60-72; *Khim. Refrat. Zhur.* 1939, No. 7, 83. A steel containing C 0.37, Mn 1.71, Si 1.57, Mo 0.30, S 0.014 and P 0.020% was investigated. The critical points were determined on Chevenard's dilatometer in which the results were registered optically. The thermal treatment consisted of quenching oil from 880° and tempering at 180-250° for machinery parts which require steels with high degrees of strength and toughness, and with tempering at 500-650° for parts which require a good strength and toughness. The steel becomes brittle if tempered at 300-400°. The change of the hardness along the splits and structures of the samples showed that the hardening of the steel penetrated very deeply. The macrostructure of the steel in the tempered state differs by a comparatively coarse structure with a slight porosity in the center of the section. After quenching from 880° this steel is characterized by a coarse-needle martensite structure. Martensite is quite stable. The Si-Mn-Mo steel possesses satisfactory tech. properties, especially under conditions of low tempering, after which it can be used to replace the Cu or Cr-Ni steels. For heavy-duty machinery parts this steel can replace the KhN steel. The Si-Mn-Mo combination in steels of the composition investigated is characterized by a slightly lower limit of plastic flow (other indexes being the same). When well hardened in oil this steel is not inclined to form cracks. W. R. Henn.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

STEEL										IRON										COPPER										ALUMINUM										MAGNESIUM										ZINC										NICKEL										COBALT										MANGANESE										SILICON										PHOSPHORUS										SULFUR										SELENIUM										TELLURUM										BARIUM										STRONTIUM										CALCIUM										SODIUM										POTASSIUM										LITHIUM										RUBIDIUM										CESIUM										FRANCIUM										ACTINIDES										LANTHANIDES										HALOGENS										GASES										METALS										NON-METALS										COMPOUNDS										MIXTURES										SOLIDS										LIQUIDS										GASES										PLASMA										RADIOISOTOPES										NUCLEAR REACTIONS										COSMOS										ASTRONOMY										GEOLOGY										BIOLOGY										MEDICINE										PHYSICS										CHEMISTRY										MATH										ENGINEERING										TECHNOLOGY										HISTORY										LITERATURE										ARTS										SPORTS										RECREATION										GENERAL									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																														

COMMON ELEMENTS		PROCESSING AND PROPERTIES INDEX	
VLASOV, A.M.		Molybdenum-Vanadium Steels as Substitutes for High-Speed Steel. M. P. Braun, A. M. Vlasov and R. I. Evenbakh. (Vestnik Metallopramyshlennosti, 1930, No. 9, pp. 34-39). (In Russian). The authors examined the response to heat treatment and the cutting properties of three molybdenum-vanadium steels (two containing tungsten) and compared their properties with those of 18/4/1 tungsten-chromium-vanadium tool steel. The analyses of the three steels were as follows:	
		(1)	(2)
		%	%
Carbon	1.11	1.24	1.32
Manganese	0.43	0.24	0.72
Silicon	0.28	0.32	0.25
Chromium	4.20	4.02	4.25
Molybdenum	4.27	4.20	3.72
Vanadium	3.03	4.04	4.10
Tungsten	...	5.55	3.81

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

FROM SUBSISTING

REVISION

DATE

VLASOV, A. M.

5

10

The Use of Commercial Nitrogen as a Neutral Atmosphere in Heat-Treatment Furnaces. M. P. Braun and A. M. Vlasov. (Metallurg, 1940, No. 2, pp. 47-52). (In Russian). In order to eliminate the numerous defects resulting from the heat-treatment of parts at the Stalingrad Tractor Works, it was decided to use commercial nitrogen obtained as a by-product from the near-by oxygen works. In this paper some experiments with this nitrogen are described. The oxygen (3-6%) in the commercial nitrogen was removed by passing the gas through an electrically heated retort containing carbon. The gas was first dried with charcoal or calcium chloride, and then passed through the retort (kept at a max. temperature of 850-950° C.), which in the first experiments was filled with charcoal. The exit gases were again dried, and then passed over heated copper turnings before being admitted into the heat-treatment furnace. Plain carbon and low-alloy steels were used in the experiments, in which changes of weight were recorded and decarburisation, if any, was determined by the microscopical examination of sections. The surface of the specimens in the first experiments was quite satisfactory after they had been heated for 2 hr. at temperatures of 700-950° C. All the specimens showed losses in weight and were found to have suffered con-

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

STEEL

OVER

STEEL

STEEL

STEEL

STEEL

CHERNY, L.A.; AMERLIAN, W.I.; HADY, A.M.; JONELIAS, T.A.

Commercial test gas injection into a water-bearing bed through
a series of wells. Gas. prom. 2 no.10:21-26 1964.

(MIA 17:12)

VLASOV, A.M. (Moskva)

Calculating interface motion between two liquids in a porous
medium. Inzh.zhur. 2 no.3:168-172 '62. (MIRA 15:8)
(Oil reservoir engineering)

VLASOV, A.N.

Morphologic terminology of Archaeocyatha. Paleont. zhur. no.3:
3-9 '62. (MIRA 15:9)

1. Paleontologicheskii institut AN SSSR.
(Archaeocyathidae--Terminology)

VLASOV, A.N.

Cambrian Clathroecinus species of the Azov-Tal Range (Kuznetsk
Alatau). Paleont. zhur. no.3:131-135 1961.

(MIRA 18:2)

1. Paleontologicheskii Institut AN SSSR.

VLASOV, A.N.

Cambrian stromatoporoids. Paleont. zhur. no. 3:22-32 '61.

(MIRA 15:2)

1. Paleontologicheskii institut AN SSSR.
(Stromatoporoidae)

L 1423-66 EWT(1) IJP(c)

ACCESSION NR: AP5021145

UR/0386/65/002/001/0027/0030

AUTHOR: Bakumenko, V. L.; Vlasov, A. N.; Kovarskaya, Ye. S.; Kozina, G. S.; Favorin, V. N.

TITLE: Step excitation of fluorescence in Er^{3+} -activated CaWO_4

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 1, 1965, 27-30

TOPIC TAGS: quantum counter, infrared quantum counter, quantum action, fluorescence, erbium doped oxide, erbium, radiation summation

ABSTRACT: Infrared quantum counter action has been discovered in Er^{3+} -doped (0.75%) CaWO_4 , similar to that recently described by Brown and Shand in Er^{3+} -doped fluoride lattices (M. R. Brown, W. A. Shand, Phys. Rev. Lett., 12, 367, 1964). Fluorescence appeared at wavelengths of about 543 mμ when the wavelength of the first exciting flux corresponded to 1.5 μ and that of the second to 710-850 mμ. The effect can be produced only by the simultaneous application of the two fluxes. The same action was observed by the authors in Er^{3+} -doped (0.5%) PbMoO_4 . According to the authors the effect may lead to the transformation of infrared radiation into visible light. Orig. art. has: 2 figures.

[ZL]

Card 1/2

L 1123-66

ACCESSION NR: AP5021145

ASSOCIATION: none

SUBMITTED: 20May65

NO REF SOV: 001

ENCL: 00

OTHER: 002

SUB CODE: SS, *OP*

ATD PRESS: *4099*

Card 2/2

BP.

BOCHKAREV, P.F., otv. red.; VLASOV, A.N., otv. za vyp.;
LASKINA, A.V., red.; PONOMAREVA, A.V., tekhn. red.

[Collection of brief scientific reports of the Faculty of Geology; supplement to the report on research work for 1961] Sbornik kratkikh nauchnykh soobshchenii geologicheskogo fakul'teta; prilozenie k otchetu o nauchno-issledovatel'skoi rabote za 1961 god. Irkutsk, Irkutskoe knizhnoe izd-vo, 1962. 78 p. (MIRA 16:10)

1. Irkutsk. Universitet.
(Geological research)

ABELEVICH, A.A.; ARTEM'YEV, Yu.N.; VLASOV, A.P.; GAL'PERIN, A.S.; YEVSNIKOV, A.V.; IVANOV, G.P.; KOROLEV, N.A.; LEVITSKIY, I.S.; LIVSHITS, L.G.; MELKOV, M.P.; HAZAROV, N.I.; NOVIKOV, M.P.; POPOV, V.Ya.; TEPLOV, A.G.; BAKHAREV, A.P., inzh., retsenzent; SAVEL'YEV, Ye.Ya., red. izd-va; MODEL', B.I., tekhn. red.; EL'KIND, V.D., tekhn. red.

[Technological aspects of the repair of crawler vehicles] Tekhnologiya remonta gusenichnykh mashin. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry 1960. 466 p. (MIRA 14:7)
(Crawler vehicles--Maintenance and repair)

VLASOV, Anatoliy Prokof'yevich, kand.tekhn.nauk; SAVINKOV, Konstantin
Pavlovich, kand.tekhn.nauk; IVANOVA, N.A., red.izd-va; KL'KIND,
V.D., tekhn.red.

[High-frequency metallization] Vysokochastotnaya metallizatsiya.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960.
126 p. (MIRA 13:10)

(Metal spraying)

PHASE I BOOK EXPLOITATION

SOV/4283

Vlasov, Anatoliy Prokof'yevich, Candidate of Technical Sciences, and Konstantin Pavlovich Savinkov, Candidate of Technical Sciences

Vysokochastotnaya metallizatsiya (High-Frequency Metallizing) Moscow, Mashgiz, 1960. 124 p. Errata slip inserted. 4,000 copies printed.

Ed. of Publishing House: N.A. Ivanova; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature on Metalworking and Machine-Tool Manufacture. (Mashgiz): V.I. Mitin, Engineer.

PURPOSE: The book is intended for technical personnel.

COVERAGE: The book is a brief review of Soviet and non-Soviet published data on methods of metal spraying and physical and mechanical properties of metal coatings. The nature of the metal-spraying process with high-frequency electric current for wire melting, metallizing apparatus and operating principles, and methods of designing spray guns are discussed. Also presented are the results of investigations of the structure and physical and mechanical properties of sprayed-steel coatings applied by high-frequency metallization. Practices of reconditioning some machine parts by this method are described, and practical recommendations are given on the technique of building up machine parts by

Card 1/4

High-Frequency Metallizing

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means of metal spraying. According to the authors the following persons have made significant contributions to the field of metallizing: Ye.V. Antoshin, D.G. Vadivasov, N.V. Kats, L.V. Krasnichenko, A.F. Troitskiy, V.V. Yefremov, and V.I. Kazartsev. There are 50 references: 39 Soviet and 11 English.

TABLE OF CONTENTS:

Introduction	3
Ch. I. Methods of Metal Spraying	5
1. Melting and spraying of metal	6
2. Transfer of metal particles onto metallized surface	13
3. Structure and chemical composition of the sprayed layer of metal	16
4. Physical and mechanical properties of steel coatings in electric-arc and gas metallization	20
Ch. II. Nature of the Process of High-Frequency Metallizing	30
1. Regularities of the high-frequency surface heating of metal	30
2. Construction and operation of the spray gun of high-frequency metal-spraying apparatus	34
Card 2/4	

VLASOV, A.P., inzh.; PONOMAREV, A.I., inzh.

High-frequency metallization. Vest. mash. 38 no.4:59-62 Ap '58.
(Metal spraying) (MIRA 11:3)

21

CAVLASOV, A. P.

Coking anthracite. N. P. Chishevskii and A. P. Vlasov. *Khim. Tverdogo Topliva* 4, 299-302 (1953); cf. *C. A.* 27, 308. — Grushevskii anthracite dust having: C 88.02, H_2O 2.01, ash 4.00, volatile matter 2.03%, C 88.02, H 3.21, $\text{O} + \text{N}$ 3.90% and heating value 7620 cal. was mixed with 8% pitch and pressed into briquets (on a lab. scale). After baking at 750° these briquets had a strength of 124-110 kg. per sq. cm. A. A. B.

VLASOV, A. P.
ca

Evaporation by means of a heat pump. A. P. Vlasov
and I. M. Perefil'miter. *Khim. Mashinostroyeniya* 1954,
No. 3, 15-19.—A math. discussion of the principle of
vacuum evapn. S. L. Madorsky

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS		PROCESSES AND PROPERTIES INDEX	
<p>VLASOV, A.P.</p> <p>CO.</p>		<p>Reduction of titaniferous magnetites at moderate temperatures. N. P. Chizhevskii, A. P. Vlasov and V. I. Shmelev. <i>Sbornik Trudov Moskov. Inst. Stal., Novoe Tekhnol. Proizvestakh Metallurg. Promyshlennosti</i> 1935, 92-122. Fe-V titaniferous magnetite ore and its concentrate were reduced with C alone, with C + reducing gases (such as H₂, CO or water gas) or with reducing gases alone, at 1000° (1000). The method consisted in heating powd. ore or mixts. of ore with coal in a small boat in a tube elec. furnace, while reducing gases (in some expts.) were passed through the furnace. The resulting Fe sponge was remelted to obtain pure Fe. Reduction with coal did not give satisfactory results, as the final product was contaminated with impurities, such as Si, Mn, Cr, Ti and V. Reduction with gaseous reducing agents, particularly H₂, gave very good results, and the final product was relatively free from impurities. The slag obtained from melting the sponge from gaseous reduction was rich in Ti, V and Cr.</p> <p style="text-align: right;">S. L. Madorosky</p>	
OPEN MATERIALS INDEX			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION			
IRON STEEL ALLOY	NON-FERROUS METALS	METALLOGRAPHY	OTHER SUBJECTS

BURNING OF FERRO-COKE WITH SUBSEQUENT RE-SMELTING IN A BLAST FURNACE. N. P. TECHINSHVSKI, A. P. VLASOV, and P. I. NEVEROV (Koks i Chim., 1936, No. 6, 30-34).—A study of the addition of Fe ore to coke to give ferro-coke showed that up to 40% of powdered Fe ore may be added. Tables of the mixtures used and analyses of component parts and final products are given. Details are given of tests on a semi-factory and a factory scale, and of coking the mixtures in closed boxes and in the furnaces. No spoilage of the furnaces was noted and coking in

batteries gave an increased yield of C_2H_4 , less NH_3 , and a slight improvement in the composition of the gas. Analysis of the Fe ore used is given; its substitution by the Fe-bearing dust (analyses given) collected in metallurgical factories has been found satisfactory.

N. G.

VLASOV, Anton Stepanovich; SHAKHNAPOVICH, L.A., red.

[Prospecting methods and results of increasing spacing intervals in borehole patterns in ore deposits of the Northeast. Secondary prospecting methods for placers in dredge mining.]
Metodika razvedki i rezul'taty razrezheniia setok raspolezheniia vyrabotok na rudnykh mestorozhdeniakh Severo-Vostoka. Metodika povtornoi razvedki rossypei dlia drazhnoi dobychi. Magadan, Vses. nauchno-issl. in-t zolota i redkikh metallov, 1962. 23 p. (Magadan. Vsesoiuznyi nauchno-issledovatel'skii institut zolota i redkikh metallov. Trudy, Ser. Dole, no.43). (MIRA 16:6)

(Siberia, Eastern—Prospecting)

VLASOV, A.S.; ZHELNIN, S.G.

New methods of prospecting for gold placer deposits. Razved. i
okh. nedr 30 no.4:8-13 Ap '67. (MLA 17:12)

1. Severo-Vostochnyy sovet narodnogo khozyaystva.

L 10305-66 EWT(l)/EWT(m)/ETC/ENG(m)/T/EWP(t)/EWP(L)/EWA(c) LEP(c) EDW/JN/JS

ACC NR: AP6000024

SOURCE CODE: UR/0368/65/003/005/0434/0440

AUTHOR: Bakumenko, V.L.; Vlasov, A.N.

ORG: None

TITLE: Investigations of the spectra of fluorescence and absorption of 3-valent ions of praseodymium in a calcium tungstate grating

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 5, 1965, 434-440

TOPIC TAGS: spectral energy distribution, fluorescence, fluorescence spectrum, praseodymium, calcium compound, tungstate

ABSTRACT: A study is made of single crystals of calcium tungstate activated with praseodymium, grown from a melt according to the Chokhralskiy method. The concentration of praseodymium in the initial melt amounted to 1 at.%. The activator was introduced as a double salt $\text{NaPr}(\text{WO}_4)_2$. The lifetime of certain fluorescent states is measured. The authors observed the effect of the excitation of the blue fluorescence (near 490 nm) by an emission in the red or the infrared regions. This is explained by the excitation of the $^3\text{P}_0$ level by sequential absorption of two long-wave photons, analogous to the phenomenon observed by M.R. Brown and W. A. Shand (Phys. Rev. Letters, 11, No. 8, 366, 1963) in the crystals of fluorides activated with praseodymium. A diagram of energetic levels is constructed, and an

Card 1/2

UDC: 535.34:535.372

L 10305-66

ACC NR: AP6000024

12

estimate is made of quantum yield and probabilities for the number of transitions. The results are of a preliminary nature; work in this direction is being continued. In conclusion, authors express their deep gratitude to Ye. S. Kovarskaya for the preparation of the single crystals, and to T. A. Kostinskaya and T. V. Aver'yanova for permission to use the fluorescence spectra taken by them with an ISP-51 instrument. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 20, 07 / SUBM DATE: 03Feb65 / ORIG REF: 002 / OTH REF: 005

Card

27/8

VLASOV. A.P., Lzh.

Testing a measuring device for strain elongation on 1210 test table.

Sbor. st. NITIIAIPACHA Ushatshchavoda no.7:121-126 '66.

(MIRA 12:10)

VIRNIK, D.I., starshiy nauchnyy sotrudnik; KHAR'KOVA, A.G., mladshiy nauchnyy sotrudnik; SHAKHNAZAROVA, M.Sh., mladshiy nauchnyy sotrudnik; VLASOV, A.P., inzh.; ROSTOVTSEVA, V.I., inzh.; CHEKANOVA, G.V., inzh.; Prinimali uchastiye: ARTEMOVA, N.N.; TSYPINA, N.D.; KUST, Ye.F.

Preparation of gelatin from raw materials processed with the acid method. Trudy VNIIMP no.13:52-63 '62. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Khar'kova, Shakhnazorova, Artemova).
2. Moskovskiy zhelatinovyy zavod (for Vlasov, Rostovtseva, Chekanova, TSypina, Kust.).

VIRNIK, David Isaakovich; VLASOV, Aleksandr Pavlovich; TALANTSEV,
Dmitriy Zinov'yevich; KHOKHLOVA, Zinaida Vasil'yevna;
LIBERMAN, S.G., kand. tekhn. nauk, retsenzent; PAVLOVSKAYA,
Z.N., inzh.-tekhnolog, retsenzent; MOROZOVA, I.I., red.;
ZARSHCHIKOVA, L.N., tekhn. red.

[Technology of glue and gelatine] Tekhnologiya kleia i zhela-
tina. [By] D.I. Virnik, i dr. Moskva, Pishchepromizdat, 1963.
479 p. (MIRA 16:8)

(Glue) (Gelatine)

VLASOV, Anatoliy Sergeyevich; GOGOLIN, Vladimir Kondrat'yevich; REYSHA,
A.K., kand. tekhn. nauk, red.; MIKHAL'CHUK, Z.V., red.;
DORODNOVA, L.A., tekhn. red.

[Technical servicing of excavators] Tekhnicheskii ukhod za ekska-
vatorami. Pod red. A.K.Reisha. Moskva, Proftekhizdat, 1962. 147 p.
(MIRA 16:2)

(Excavating machinery--Maintenance and repair)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860230006-5

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860230006-5"

conducted at temperatures of 1,100 - 1,800°. It was established that as tempera-

cermet K-1 the speed of evaporation is less than for cermet K-0; therefore tempera-

YANKOVSKIY, A.K.; POVALISHINA, T.P.; VLASOV, A.S.; KOZHUSHKO, M.I.; SADOVSKAYA, Ye.V.

Data on the natural foci of hemorrhagic fever with a renal syndrome in Moscow Province. Zhur.mikrobiol.,epid.i immun. 40 no.12:46-51 D '63.
(MIRA 17:12)

1. Iz Instituta poliomiellita i virusnykh entsefalitov AMN SSSR.

Vlasov, H.S.

AUTHORS: Preobrazhenskiy, N. A., Malkov, E. M., 79-11-53/56
Maurit, M. Ye., Vorob'yev, M. A.
Vlasov, A. S.

TITLE: Synthesis of the Alkaloid Arecoline and its Homologues
(Sintez alkaloida arekolina i yego gomologov).

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 11,
pp. 3162-3170 (USSR)

ABSTRACT: The alkaloid of the Aroca Catechu palm recognized as
N-methyl-1,2,5,6-tetrahydronicotinic acid ester (see its
hydrogen bromide salt in formula VI) was hitherto
synthesized in different manners. The authors carried out a
synthesis of this alkaloid and its homologues of special
practical importance with different substituents on nitrogen,
starting from the methyl ester of acrylic acid (see series
of formulae I-VI). The reaction of the methylacrylic acid
ester upon alkylamines leads to the formation of β, β' -
dicarbometoxydiethylalkylamines. The cyclization to N-alkyl-
3-carbometoxy-4-piperidone takes place in alcoholate by
heating of the diester of one of these amines. This
piperidine is reduced to N-alkyl-3-carbometoxy-4-

Card 1/3

Synthesis of the Alkaloid Arecoline and its Homologues

79-11-53/56

oxypiperidine. By dehydration with the aid of dehydrating agents the latter is converted to the methyl ester of N-alkyl-

- Δ^3 - tetrahydronicotinic acid which latter with hydrogen bromide forms the salt. The following homologues of arecoline were synthesized according to one and the same method: The methyl esters of N-ethyl-, N-n.-propyl-, N-n.-butyl- and N-benzyl- Δ^3 -tetrahydronicotinic acid. The physiological investigations in the pertinent Moscow institutes showed that the produced hydrobromide of arecoline completely corresponds with the same salt of the natural alkaloid. Of the arecoline homologues only the n-propyl derivative exerts a weak physiological action. There are 9 references, 5 of which are Slavic.

Card 2/3

Synthesis of the Alkaloid Arecoline and its Homologues
ASSOCIATION:

79-11-53/56

Moscow Institute of Fine Chemical Technology.

Experimental Plant of the All-Union Chemical Pharmaceutical

Scientific Research Institute

(Moskovskiy institut tonkoy khimicheskoy tekhnologii.

Opytnyy zavod vsesoyuznogo nauchno-issledovatel'skogo
khimiko-farmatsevticheskogo instituta).

SUBMITTED: October 20, 1956

AVAILABLE: Library of Congress

- | | |
|--------------------------|--------------------------|
| 1. Arecoline - Synthesis | 2. Alkaloids - Synthesis |
| 3. Aroca Catechu Palm | 4. Alkaloids - Sources |

Card 3/3

SOV/100-59-10-7/12

14(2)

AUTHOR: Vlasov, A.S. Engineer

TITLE: Improving the Quality of the Hydraulic Pumps NPA-64

PERIODICAL: Mekhanizatsiya stroitel'stva, 1959, Nr 10, pp 24-26 (USSR)

ABSTRACT: While the design of the excavator E-153 has been improved to a point where it is possible to operate it for up to 3,000 hours without having to overhaul its mechanism, the hydraulic pump NPA-64 installed on the excavator is only guaranteed for 1,500 hours of service. However, actually this time amounts only to 700-800 hours without repair. The main reasons for the failure of the hydraulic pump to perform lie in the utilization of inferior oil which includes impurities, clogged up filters, oil leakages etc. The article describes the design of the mechanism of the hydraulic pump system, explaining the consequences of neglecting its proper care and attention. It is therefore upon initiative of the Administration of Mechanization of Glavmosstroy, that a compulsory service has been established covering periodical inspection, maintenance, repair and - if necessary - exchange of oil reservoirs.

Card 1/2

SOV/100-59-10-7/12

Improving the Quality of the Hydraulic Pumps NPA-64 .

As a result of these precautionary measures the life of the hydraulic pumps has doubled as compared with the previous one.
There are 3 diagrams.

Card 2/2

ZASOSOV, V.A.; METEL'KOVA, Ye.I.; VOLZHINA, O.N.; SHAGALOV, L.B.; VLASOV,
A.S.

New method of producing norsulfazole. Med. prom. 17 no.9:15-22
S'63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni Sergo Ordzhonikidze.

GOGOLIN, V.K., inzh.; KUTYREV, I.A., inzh.; VLASOV, A.S., inzh.;
IFTINKA, G.A., red.izd-va; GOL'BERG, T.M., tekhn. red.

[Handbook on the technical maintenance of tower cranes] Ru-
kovodstvo po tekhnicheskómu ukhodu za bashennymi kranami
(NP-61). Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i
stroit. materialam, 1961. 85 p. (MIRA 15:5)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut orga-
nizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
(Cranes, derricks, etc.—Maintenance and repair)

VLASOV, A.S.; POLUBOYARINOV, D.N.

Making use of exothermic reactions for the production of ceramic metals on a chromium and aluminum oxide base. Ogneupory 28 no.5:232-234 '63. (MIRA 16:6)

1. Khimiko-tekhnologicheskii institut im. D.I. Mendeleeva.
(Ceramic metals--Thermal properties)
(Aluminothermy)

VLASOV, A.S., inzh.

Operation and maintenance of machinery in construction of
hydraulic structures. Energ. stroi. no.33:62-66 '63.

(MIRA 17:8)

1. Gosplan SSSR.

L 18513-63

AFFTC/ASD/ESD-3/SSD EPR/EWT(d)/EPF(c)/EPF(n)-2/EWP(q)/EWT(m)/BDS/T-2 AEDC/
Ps-h/Pr-h/Pn-h WW/JD/WH/JG

ACCESSION NR: AP3000027

8/0131/63/000/005/0232/0234

AUTHORS: Vlasov, A. S.; Poluboyarinov, D. N.

TITLE: Cermet made of chromium and aluminum oxide by using exothermal reaction

SOURCE: Ogneupory, no. 5, 1963, 232-234

TOPIC TAGS: cermet, thermite reaction, Cr_2O_3 , Al_2O_3 , corundum, physical property, thermal stability

ABSTRACT: This report is a summary of cermet properties, and a discussion of possible improvement in stability characteristics of chromium-corundum cermets by the use of the thermite reaction. The thermite reaction $\text{Cr}_2\text{O}_3 + 2\text{Al} = 2\text{Cr} + \text{Al}_2\text{O}_3$ + Q is initiated in an electric furnace by heating to 875C a mixture of metallic chromium and corundum, held in a corundum container. Thereafter the reaction continues spontaneously and produces material containing 50.2% Cr and 49.8% Al_2O_3 . To obtain the composition of 30% Cr and 70% Al_2O_3 , corundum may be added to the mixture either before the reaction (for cermet K-1) or after the reaction (for K-2). The control batch (K-0) consists of 30% metallic Cr and 70% clay alumina. In general, the properties of cermets K-1 and K-2 are better than those of K-0 and their somewhat lower thermal stability will probably be improved in the future. Orig. art. has: 1 table and 3 photographs.

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L 18513-63

ACCESSION NR: AP3000027

ASSOCIATION: Khimiko-tekhnologoicheskiy institut im. D. I. Mendeleeva (Chemical-
Technological Institute)

SUBMITTED: 00

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: ML

NO REF SOV: 002

OTHER: 003

Card 2/2

L 41024-65

ACCESSION NR: AP5008582

S/0286/55/000/006/0130/1130

AUTHORS: Mikhalev, V. A.; Vlasov, A. S.; Dorokhova, M. I.; Moskalik, Ye. K.;
Smolina, N. Ye.; Tikhonova, O. Ya.; Shagalov, L. B.

TITLE: A method of preparing 3,4-bis-(n)-diethylaminoethoxy-(phenyl)-hexane.
Class 30, No. 152540

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 130

TOPIC TAGS: hexane, chloride, pharmacology

ABSTRACT: This Author Certificate presents a method of producing 3,4-bis-(n)-
diethylaminoethoxy-(phenyl)-hexane by reacting between symetrol and

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L 41094-65

ACCESSION NR: AP5008582

the process, a diethylaminoethyl chloride salt is used, such as chlorhydrate.
The process is facilitated by the addition of a small amount of sodium
soda as the alkali agent. To prevent excessive dilution of the reaction mass, the
process is carried out in a closed system with a minimum of the alcohol.

ASSOCIATION: none

SUBMITTED: 13Nov61

ENCL: 10

SUB CODE: OC, LS

NO. OF PAGES: 10

10. 10. 10

Card 2/2

ACC NR: A10036942

SOURCE CODE: UR/0000/66/000/000/0221/0224

AUTHOR: Skidan, B. S.; Poluboyarinov, D. N.; Vlasov, A. S.

ORG: none

TITLE: Problem of sintering metal-aluminum oxide cermets

SOURCE: Nauchno-tekhnicheskoye obshchestvo chernoy metallurgii. Moskovskoye pravleniye. Vysokoogneupornyye materialy (Highly refractory materials). Moscow, Izd-vo Metallurgiya, 1966, 221-224

TOPIC TAGS: metal aluminum oxide cermet, dispersion strengthened alloy, titanium oxide containing cermet, cobalt containing cermet, iron containing cermet, chromium containing cermet, niobium containing cermet, molybdenum containing cermet, tungsten containing cermet, cermet, corundum

ABSTRACT: A series of experiments with sintering cermets consisting of corundum (Al_2O_3) and metal, such as nickel, cobalt, iron, chromium, niobium, molybdenum or tungsten, has been conducted. It was found that dense, high-strength cermets can be produced whenever the difference between the sintering temperatures of metal and corundum does not exceed 100—150C. For instance, $Ni + Al_2O_3$ cermet had a porosity of 32% and a bend strength of 430 kg/cm² (the differences between the sintering temperatures of 1200C for nickel and 1750C for Al_2O_3 is 550C) while the $Nb + Al_2O_3$ cermet had a porosity of 2.5% and a bend strength of 4850 kg/cm² (the

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ACC NR: AT6036942

sintering temperature of Nb is 1850C). However, the density and strength of cermets consisting of components with greatly different ~~sintering~~ of temperatures can be improved by additional alloying with nickel or zirconium or a combination of both. For instance, the porosity of W + Al₂O₃ cermet dropped from 24% to 5% as a result of addition of 1% Ni. Simultaneously, the bend strength increased from 800 kg/cm² to 3050 kg/cm². The W + Al₂O₃ + 1% Zr cermet had a porosity of 7.0% and a bend strength of 3500 kg/cm². The addition of 2% TiO₂ to CO + Al₂O₃ cermet decreased the porosity from 30% to 16% and increased the bend strength from 680 kg/cm² to 1490 kg/cm² and the notch toughness from 1.5 kg·cm/cm² to 1.75 kg·cm/cm². Orig. art. has: 1 table.

[ND]

SUB CODE: 11, 13/ SUBM DATE: 02Nov65/ ORIG REF: 005/ OTH REF: 003/
ATD PRESS: 5109

Card 2/2

VLASOV, Aleksandr V.

DECEASED '62

1962 / 6

Civil Engineering

TOP SECRET SPA/31-2/EPR(n)/EPR(n)/EPR(n)-2/EPR/SPA(w)-2/EPR(j)/T/EPR(b) Pc-4/

1. The purpose of this document is to provide a detailed description of the procedures and methods used in the development and testing of the aircraft engine. The document is intended for use by personnel involved in the design, development, and testing of the engine.

2. The document is organized into several sections, each dealing with a specific aspect of the engine development process. The sections are as follows:

3. The first section, "Introduction," provides a general overview of the engine development process and the objectives of the project. It also discusses the importance of the engine in the overall aircraft design and the role of the engine in the aircraft's performance.

4. The second section, "Design," describes the design process for the engine, including the selection of the engine type, the determination of the engine's operating conditions, and the design of the engine's components. It also discusses the methods used to optimize the engine's performance and the methods used to test the engine's components.

5. The third section, "Development," describes the development process for the engine, including the manufacturing of the engine's components, the assembly of the engine, and the testing of the engine. It also discusses the methods used to monitor the engine's performance during development and the methods used to troubleshoot any problems that may arise.

6. The fourth section, "Testing," describes the testing process for the engine, including the determination of the engine's operating conditions, the selection of the test equipment, and the execution of the tests. It also discusses the methods used to analyze the test results and the methods used to improve the engine's performance.

7. The fifth section, "Conclusion," summarizes the results of the engine development process and discusses the future of the engine. It also discusses the methods used to improve the engine's performance and the methods used to troubleshoot any problems that may arise.

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SUBMITTED: 09 Nov 62

ENCL: 00

VLASOV, A.V.; GLAZUNOV, P. Ya.; MOROZOV, Yu.L.; PATALAKH, I.I.; POLAK,
L.S.; RAFIKOV, S.R., akademik; TSETLIN, B.L.

Synthesis of semiconducting combined materials by the method
of gas-phase grafted radiation polymerization. Dokl. AN SSSR
158 no.1:141-142 S-O '64 (MIRA 17:8)

1. AN KazSSR (for Rafikov).

VLASOV, A.V.; TOKAREVA, L.G.; TSVANKIN, D.Ya.; TSETLIN, B.L.; SHABLYGIN,
M.V.

Oriented polyvinylidene chloride produced by radiation polymerization from the gaseous phase on oriented polymeric supporting structures. Dokl. AN SSSR 161 no.4:857-860 Ap '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soedineniy AN SSSR i Vesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna. Submitted September 25, 1964.

BELAVTSEVA, Ye. M.; GUMARGALIYEVA, K. Z.; KITAYGORODSKIY, A. I.; VLASOV, A. V.

"Staining method used for graft polymer investigation by electron microscopy."

report submitted to 3rd European Regional Conf, Electron Microscopy,
Prague, 26 Aug-3 Sep 64.

VLASOV, [A.V.]

PA 29/49T30

USSR/Engineering
Bibliography

Aug 48

"New Books" $\frac{1}{2}$ p

"Mekh Trud i Tyazh Rabot" No 8

Three good books have been published in 1948:
Vlasov's "Saw Production," Skiba's "Mechanization
of Wagon Repair Work," and Velikhov's "Erection of
Metallic Constructions." Books have been recommended
as texts for higher technical schools.

29/49T30

VLASOV, A.V., inzhener.

One year's experience in operating a condenser battery for the
purpose of increasing the capacity coefficient. *Energetik* 2 no.3:6-9
Mr '54. (MLRA 7:5)

(Condensers (Electricity))

KOVALEV, N.G.; ZMEYEV, A.A.; LUKIN, Ye.I.; FADINA, G.I.; KATIN,
V.K.; SYSHCHIKOV, Yu.T.; VLASOV, A.V.; KARPOV, I.N.;
ASTAKHOV, A.S.; DARONYAN, M., red.; MOSKVINA, R., tekhn.
red.

[Africa in figures; a statistical manual] Afrika v tsif-
rakh; statisticheskii spravochnik. Moskva, Sotsekgiz,
1963. 566 p. (MIRA 16:11)
(Africa--Statistics)

KAL'M, P.A.; VLASOV, A.V., redaktor; GLADKIY, N.P., redaktor; LEVONEVSKAYA,
L.G., ~~tekhnicheskiy~~ redaktor

[Manual of norms for planning and operational direction of
collective farms] Spravochnik normativov dlia planirovaniia
i operativnogo rukovodstva v kolkhozakh. 2-e, perer. izd.
[Leningrad] Leningradskoe gazetno-zhurnal'noe i knizhnoe izd-
vo, 1955. 339 p. (MIRA 9:4)

1. Dotsent Leningradskogo sel'skokhozyaystvennogo instituta
(for Kal'm)

(Collective farms)

VLASOV, A.V.; GLAZUNOV, P.Ya.; MIKHAYLOV, N.V.; RAFIKOV, S.R.;
TOKAREVA, L.G.; TSETLIN, B.L.; SHABLYGIN, M.V.

Formation of oriented structures in the radiation polymerization
of vinyl monomers on fibers. Dokl.AN SSSR 144 no.2:382-383 My
'62. (MIRA 15:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i
Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokhna. Predstavleno akademikom V.A.Karginym.
(Vinyl compound polymers) (Radiation)

38110

S/020/62/144/002/023/028
B101/B110

15.5540

AUTHORS: Vlasov, A. V., Glazunov, P. Ya., Mikhaylov, N. V., Rafikov, S. R., Tokareva, L. G., Tsetlin, B. L., and Shablygin, M. V.

TITLE: Formation of oriented structures in radiation-induced polymerization of vinyl monomers on fibers

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 2, 1962, 382 - 383

TEXT: An attempt was made to obtain oriented polymers by polymerizing the monomer from the gas phase on oriented macromolecules of fibers acting as "matrices". The experiments were made with a two-chamber apparatus as used for graft polymerization of vinyl monomers on mineral particles (cf. B. L. Tsetlin et al., Tr. 2-go Vsesoyuzn. soveshch. po radiatsionnoy khimii, Izd. AN SSSR, 1962). One chamber contained caprone cord fiber heated to 80°C, and the other contained completely anhydrous acrylonitrile (40°C). Irradiation was made with X-rays (dose rate, $3 \cdot 10^{15}$ ev/cm³·sec) for 3 - 6 hrs at 10^{-4} - 10^{-5} mm Hg. The weight of the fiber increased by 15 - 33 %. The perpendicular dichroism in the -C≡N stretching vibrations (2235 cm⁻¹),

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Formation of oriented structures in ...

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B101/B110

detected by spectroscopy, proved the orientation of the polymer. Experiments with acrylonitrile and non-oriented fiber as well as with liquid acrylonitrile and oriented fiber showed no dichroism. The liquid monomer molecules are assumed to prevent orientation. Further experiments with polymers, man-made and natural fibers used as "matrices" are under way. There is 1 figure.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR). Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute of Synthetic Fibers)

PRESENTED: January 19, 1962, by V. A. Kargin, Academician

SUBMITTED: January 12, 1962

Card 2/2

S/020/60/135/004/030/037
B604/3056

AUTHORS: Kargin, V. A., Academician, Mirlina, S. Ya., Kabanov, V. A.,
Mikheleva, G. A., and Vlasov, A. V.

TITLE: Structure and Properties of Isotactic Polyacrylic Acid and
of Its Salts

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 4,
pp. 893 - 895

TEXT: The problem the authors discuss is the study of spatially regular synthetic polyelectrolytes which may be used as model substances of biological polymers. An electron-microscopic examination of the secondary structures of isotactic polyacrylic acid (PAA) and of its salts has been made by means of a JEM-5Y apparatus. PAA was obtained by alkaline hydrolysis of isotactic polyisopropyl acrylate. Thermogravimetric study showed that PAA crystallizes as a hydrate, with two monomeric members sharing one water molecule. The salts were produced by potentiometric titration (glass electrodes, MII-5 (LF-5) tube potentiometer) with $\text{Ba}(\text{OH})_2$, NaOH ,

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Structure and Properties of Isotactic
Polyacrylic Acid and of Its Salts

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B004/B056

and $(\text{CH}_3)_4\text{NOH}$. The following results are given: Isotactic PAA evaporated from 0.01 - 0.0001% aqueous solution upon a colloxylin film showed similar globuli as atactic PAA whose amorphous character was revealed by electron diffraction studies. Crystallization occurred after HCl addition to the dilute solution (0.00001 - 0.0001%). Crystal stacks, spiral bands, and single crystals were observed. Crystallization in the presence of HCl is explained by suppressed dissociation of the carboxyl groups. In acid media, PAA behaves like a spatially regular polymer. Barium salt produced from solutions with pH 4.2 - 10.7 exhibited globuli within the entire pH range. Intrinsic viscosity at pH = 5 was 0.07 for PABa, and 0.12 for PAA. Sodium salt obtained at pH 4.2 - 11.5 showed globuli in the case of low pH, which at pH = 6.75 unrolled as a consequence of increasing dissociation and intramolecular repulsion of the COO^- groups. Fibrils were forming. At pH = 7 dissociation was complete, single crystals formed, and intrinsic viscosity reached a maximum. At higher pH, the molecule chains entangled again, and globuli were observed. In the case of tetramethylammonium polyacrylate, fibrils were observed near the neutral point, which

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Structure and Properties of Isotactic
Polyacrylic Acid and of Its Salts

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B004/0050

resembled the structures of biopolymers. Observation of a tetramethyl-
ammonium polyacrylate film in polarized light and dry air (40 - 60° C)
showed that the film consisted of intergrown rhombic single crystals,
100μ in size, with a folded structure. Cooling down to 20° C initiated
destruction of the crystals by air humidity. Birefringence vanished.
Re-heating, however, re-established the old crystal structure. From
these phenomena it is concluded that in the swelled film the mutual
position of the structural elements remains unchanged. Hence, isotactic
PAA showed the same structural types as atactic PAA. However, due to
the regular succession of asymmetric atoms, isotactic PAA showed a greater
variety in fibril forms approaching the regular structures of biopolymers.
There are 4 figures and 2 references: 1 Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V.
Lomonosova (Moscow State University imeni M. V.
Lomonosov)

Card 3/3

88732

5.3100

S/190/61/003/001/017/020

15.8105

B119/B216

AUTHORS: Kargin, V. A., Kabanov, V. A., Mirlina, S. Ya., Vlasov, A. V.

TITLE: Isotactic polyacrylic acid and its salts

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 1, 1961, 134-138

TEXT: The present paper treats the synthesis of isotactic (stereoregular) polyacrylic acid (PAA) and its properties. This PAA, the authors hoped, would provide a suitable model corresponding to biological polyelectrolyte systems. PAA was synthesized by the following procedure: Isotactic polyisopropyl acrylate (PPA, Ref. 1), prepared by polymerization of isopropyl acrylate, was hydrolyzed. Hydrolyzation was carried out in various mediums: 1. PPA - H₂O - KOH, 2. PPA-H₂O-methanol - KOH, 3. PPA - methanol - KOH, 4. PPA - dioxane - KOH, 5. PPA - H₂O - dioxane - KOH, 6. PPA - pyridine - KOH, 7. PPA - H₂O - pyridine - KOH, 8. PPA - dimethyl formamide - KOH, 9. PPA - propyl alcohol - KOH, 10. PPA - H₂O - propyl alcohol - KOH, 11. PPA - propyl alcohol - toluene - KOH, 12. PPA - H₂O - propyl alcohol -

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